## Montana Department of Transportation Helena, Montana 59620-1001

## Memorandum

**To:** Technical Panel Members:

Lisa Autio/MDT Research Section Lee Grosch/MDT Geotechnical Section Dan Hill/MDT Pavement Analysis Section

Bob Mokwa/WTI

John Sharkey/MDT Geotechnical Section

Mark Zitzka/FHWA

From: Susan C. Sillick

Manager, Research Programs

Date: September 5, 2008

**Subject:** Technical Panel Meeting Notes

The first meeting of the *Laboratory Evaluation of Subgrade Soils* occurred on 8/19/08. The following technical panel members were present: Lisa Autio, Lee Grosch, Dan Hill, Bob Mokwa, John Sharkey, and Sue Sillick. The following technical panel member was absent: Mark Zitzka.

Sue reviewed the Research Project Process flowchart, Technical Panel roles and Responsibilities, and Research Project Statement form with the panel. Lee is the chair for this project and Sue is the Research Project Manager. Sue emphasized the importance of developing a well-thought out scope of work and proposal. She also emphasized the importance of the technical panel to the success of the project. Finally, Sue emphasized the importance of considering implementation, including barriers and potential products from the start to facilitate the usefulness of the final products and implementation of the results.

Lee indicated he would like a better method, other than R-Value testing, to determine subgrade soil characteristics. There is great variability in R-Value results. Even though MDT has used the R-Value test for a long time, the data doesn't mean much if it doesn't correlate well with other tests and the confidence in the results is low. Resilient modulus (M <sub>r</sub>) is being used with the new M-E pavement design methods. It is not feasible to use the M <sub>r</sub> test on every sample; however, it is desirable to be able to correlate test results with M <sub>r</sub>. Other possible tests include: CBR (including in-place) and resonant column test.

Bob suggested a small project as the first phase. This project would include a literature review, state of the practice, and scoping and defining testing parameters for a phase 2. He is interested in this project and committed to delivering a proposal for review and comment by the end of September. Sue indicated the agenda for the October RRC meeting would be going out no later than 10/16. The panel will try to meet this deadline by reviewing and revising the proposal so that it is in final form by about 10/14.

The next phase will be determine by the first phase, but may include testing representative soil samples from around the state for R-Value, CBR, M<sub>r</sub>, atterberg, and index tests; determining

any correlations that exist; developing a procedure for identifying problem soils that may require additional testing; and developing an implementation plan to improve soil testing at MDT.

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